

WHAT IS CLAIMED IS:

- 1 1. An evaporative cooling system comprising:
2 a housing comprising a base sheet and a side wall and
3 having at least one opening fitted with an evaporative medium pad and an
4 exhaust vent;
5 a pump configured to disperse water across the evaporative
6 medium pad;
7 a pan configured to receive the water, wherein the pump is
8 configured to cooperate with the pan to recirculate the water;
9 an exhaust fan configured to draw air into the housing
10 through the evaporative medium pad and out the exhaust vent;
11 wherein the side wall of the housing is at least partially
12 clinched to the base sheet of the housing to form a joint having a
13 corrosion resistant coating.
- 1 2. The evaporative cooling system of Claim 1 wherein the side
2 wall is at least partially pressed into the base sheet.
- 1 3. The evaporative cooling system of Claim 1 wherein the side
2 wall is at least partially folded into the base sheet.
- 1 4. The evaporative cooling system of Claim 3 wherein the
2 corrosion resistant coating comprises a multi-layer coating.
- 1 5. The evaporative cooling system of Claim 4 wherein the
2 corrosion resistant coating comprises a powder coated finish.

- 1 6. A kit for assembling an evaporative cooling system
2 comprising:
3 a housing comprising a base sheet and a side wall;
4 an evaporative medium pad configured to couple to the
5 housing;
6 an exhaust vent configured to couple to the housing;
7 a pump configured to disperse water across the evaporative
8 medium pad;
9 a pan configured to receive the water;
10 an exhaust fan configured to draw air into the housing
11 through the evaporative medium pad and out the exhaust vent;
12 wherein substantially all surfaces of the side wall and the
13 base sheet of the housing have a corrosion resistant coating.
- 1 7. The kit of Claim 6 wherein the side wall is configured to
2 attach to the base sheet with a clinched fastener.
- 1 8. The kit of Claim 7 wherein the clinched fastener comprises a
2 joint.
- 1 9. The kit of Claim 8 wherein the joint comprises the side wall
2 of the housing at least partially pressed into the base sheet of the
3 housing.
- 1 10. The kit of Claim 8 wherein the joint comprises the side wall
2 of the housing at least partially folded into the base sheet.
- 1 11. The kit of Claim 10 wherein the corrosion resistant coating
2 comprises a multi-layer coating.
- 1 12. The kit of Claim 11 wherein the joint comprises a plurality of
2 diagonally aligned clinched areas.

1 13. A method of making an evaporative cooler having a housing
2 comprising a base sheet and a side sheet, the method comprising:
3 bending an edge of the base sheet to form a base flange;
4 applying a corrosion resistant coating to the base sheet and
5 the side sheet;
6 clinching a portion of the side sheet and a portion of the
7 base flange thereby forming a joint comprising the side sheet at least
8 partially pressed into the base flange.

1 14. The method of Claim 13 wherein clinching further comprises
2 pressing the side sheet at least partially into the base flange.

1 15. The method of Claim 13 wherein clinching further comprises
2 folding the side sheet at least partially into the base flange.

1 16. The method of Claim 15 wherein applying the corrosion
2 resistant coating comprises applying the coating to substantially all
3 surfaces of the base sheet and the side sheet before clinching the side
4 sheet and the base flange.

1 17. The method of Claim 16 wherein applying the corrosion
2 resistant coating comprises applying a multi-layer coating.

1 18. The method of Claim 17 wherein applying the corrosion
2 resistant coating comprises applying a powder coated finish.

1 19. The method of Claim 19 wherein the step of clinching
2 includes creating a first clinch proximate a sealing edge of the flange and
3 a second clinch positioned further from the sealing edge of the flange
4 than the first clinch.

1 20. The method of Claim 19 wherein the step of clinching
2 includes creating the first clinch in a position that is diagonally offset
3 relative to the second clinch.

1 21. A housing for containing an article of manufacture
2 comprising:
3 a base sheet having a flange with a sealing edge configured
4 for coupling to a side wall;
5 a joint coupling the flange of the base sheet to the side wall
6 comprising a first clinch and a second clinch each on the sealing edge of
7 the flange;
8 wherein the first clinch is positioned closer to the sealing
9 edge than the second clinch.

1 22. The housing of Claim 21 wherein the first clinch is diagonally
2 offset from the second clinch.

1 23. The housing of Claim 21 further comprising a third clinch on
2 the sealing edge of the flange and is diagonally offset from the first clinch
3 and the second clinch.

1 24. The housing of Claim 21 wherein the third clinch is
2 positioned further from the sealing edge than each of the first clinch and
3 the second clinch.